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GROUP 15

INTAKE AND EXHAUST

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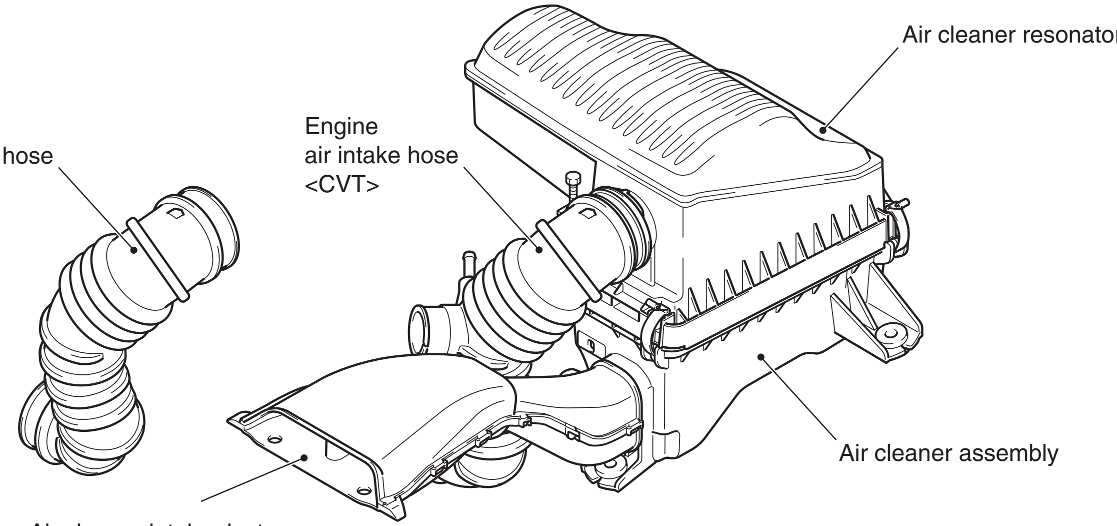
AIR INTAKE SYSTEM

AIR DUCT AND AIR CLEANER

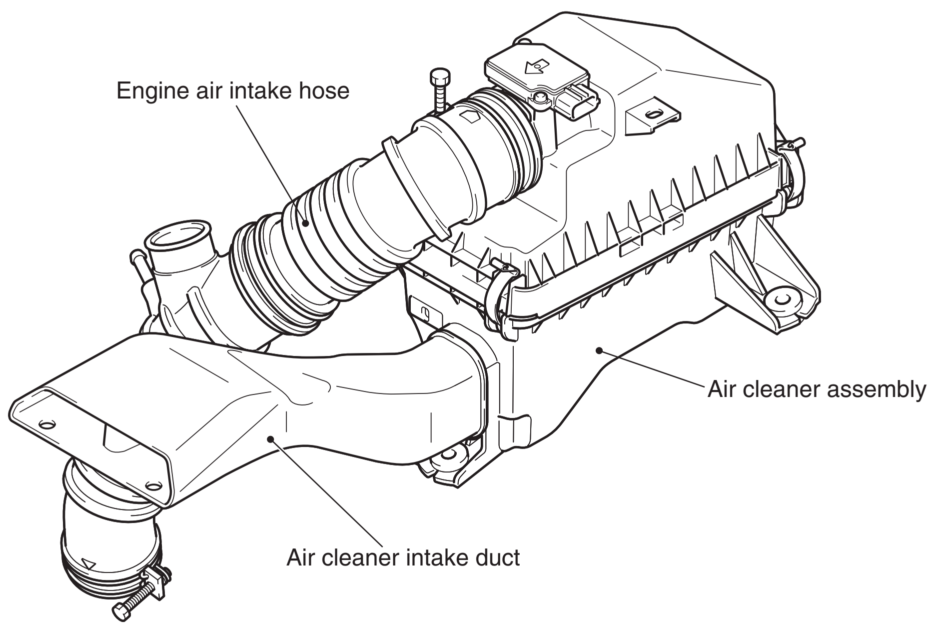
M2150004000504

CONSTRUCTION DIAGRAM

<4A9>



<4G1>



- An air cleaner resonator has been adopted to improve engine performance and reduce air intake noise <4A9>.
- A front air intake system that actively sucks cooling air from the front through the top of the radiator has been adopted in order to improve engine performance and reduce air intake noise.
- For the air cleaner intake duct, a venturi duct with a diaphragm on its path has been adopted to suppress rise in air resistance and reduce air intake noise.
- In consideration of industrial waste reduction and global environment, recycled materials made from eating utensils and the scraps have been adopted for the air cleaner body and cover of the air cleaner assembly.

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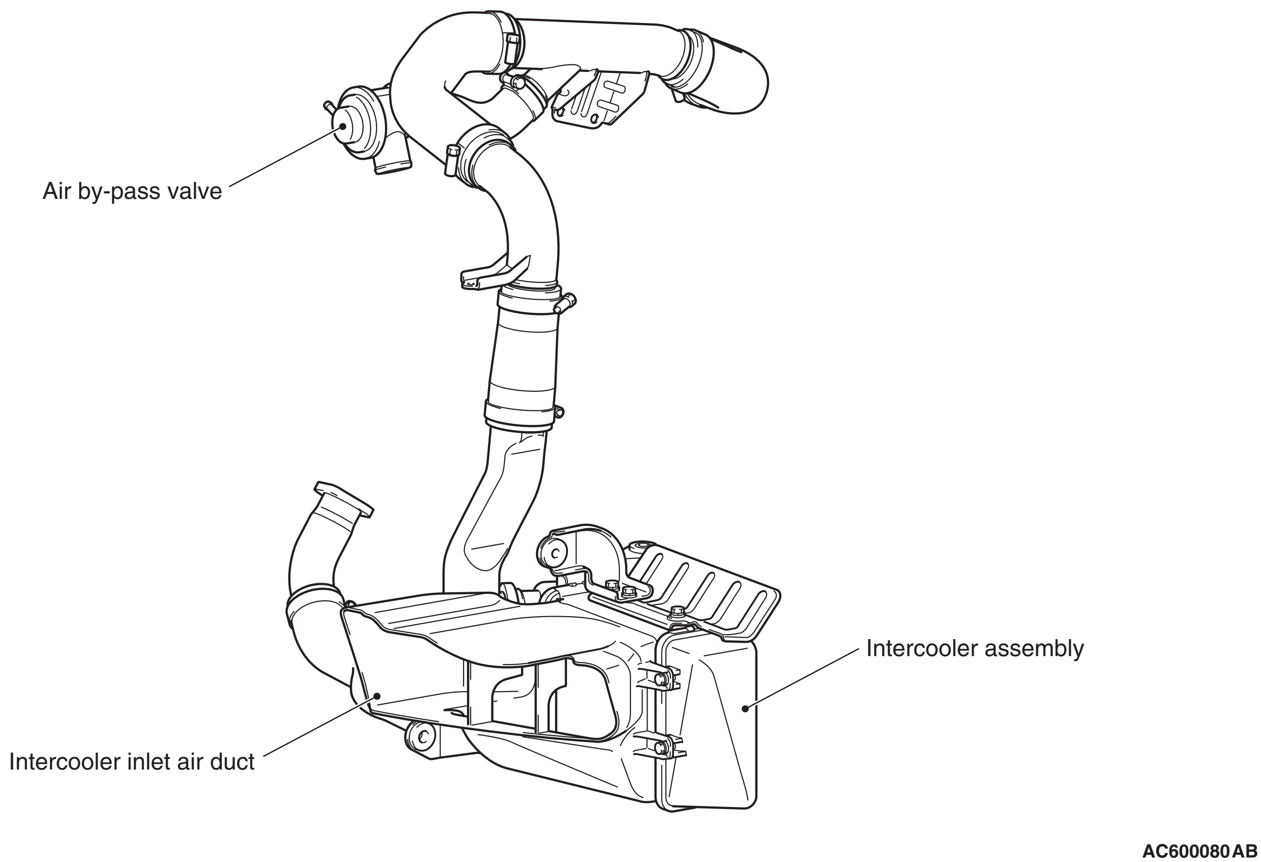
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INTERCOOLER <4G1>

M2150007000246

An air cooled intercooler has been adopted to lower the intake air temperature drastically and improve engine performance.

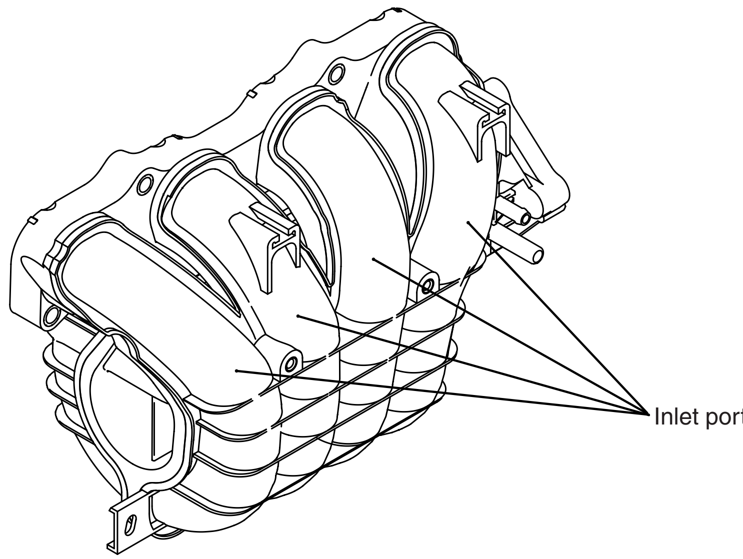
CONSTRUCTION DIAGRAM



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INLET MANIFOLD <4A9>

M2150010000105

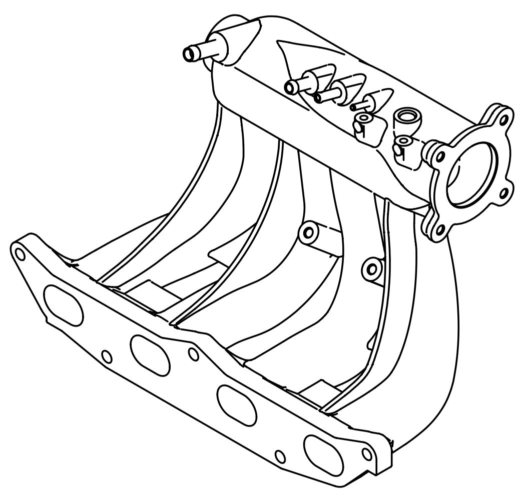


AK305379AB

The inlet manifold is made of resin. The inlet ports are curled for size and weight reduction.

INLET MANIFOLD <4G1>

M2150010000116



AK403235

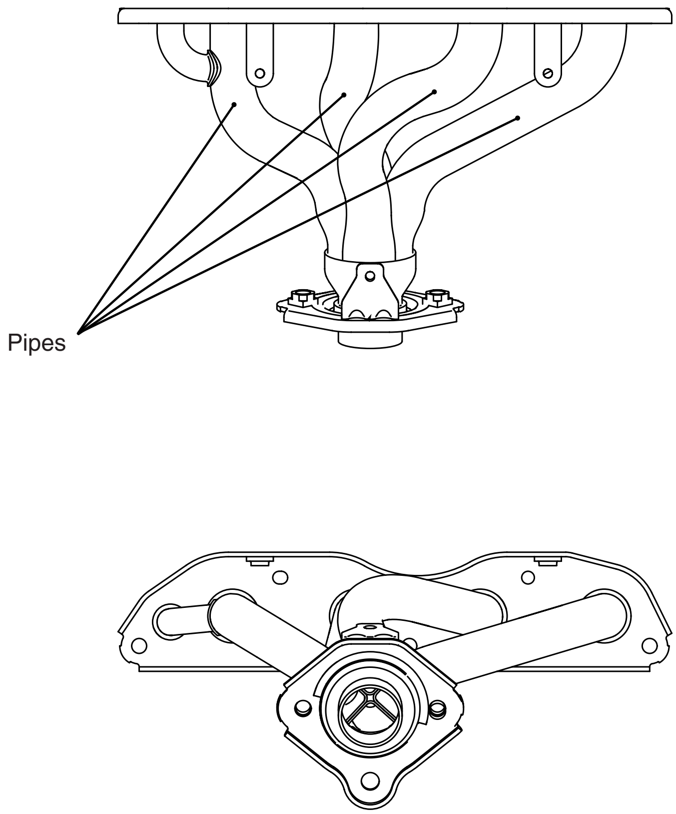
The port shape is changed to be optimum for the vehicle with the turbocharger.

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EXHAUST SYSTEM

EXHAUST MANIFOLD <4A9>

M2150006000317



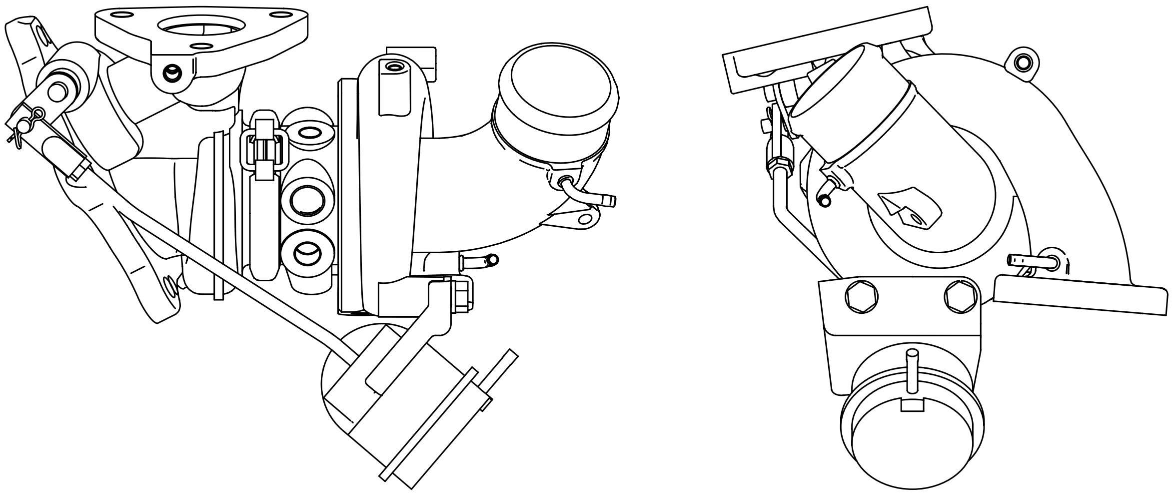
AK402037AD

The exhaust manifold consists of stainless steel pipes, with all the ports being equal in length, to achieve robust mid-range torque and weight reduction.

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TURBOCHARGER <4G1>

M2150009000123



AK402141

Considering the balance among the engine output, the response and the amount of the exhaust gases, the optimized size is used .

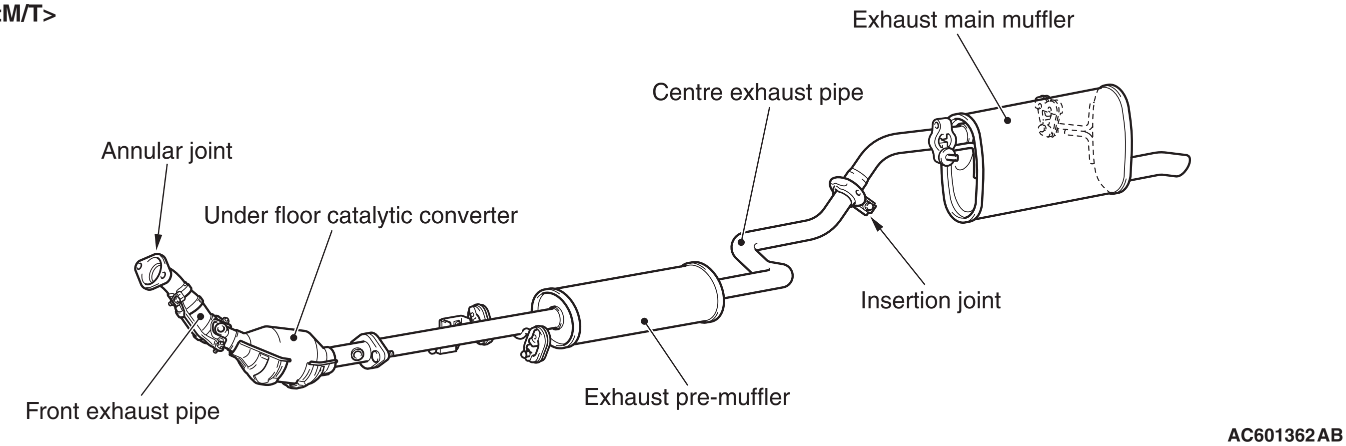
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EXHAUST PIPE AND MUFFLER <4A9>

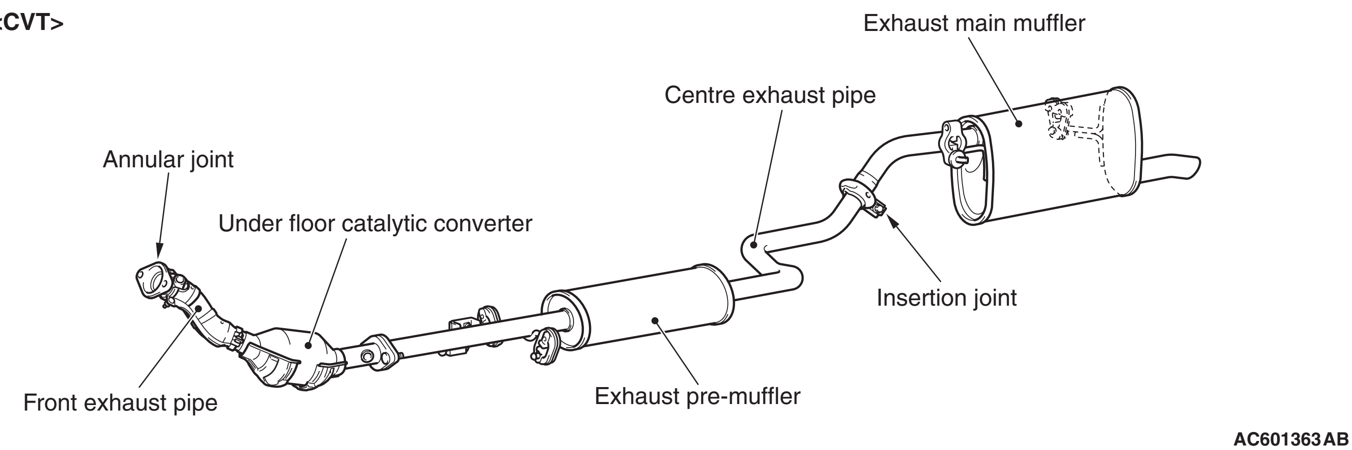
M2150003000642

CONSTRUCTION DIAGRAM

<M/T>



<CVT>



Exhaust pipe consisting of three separation system: front exhaust pipe, centre exhaust pipe, and exhaust main muffler, has the following features:

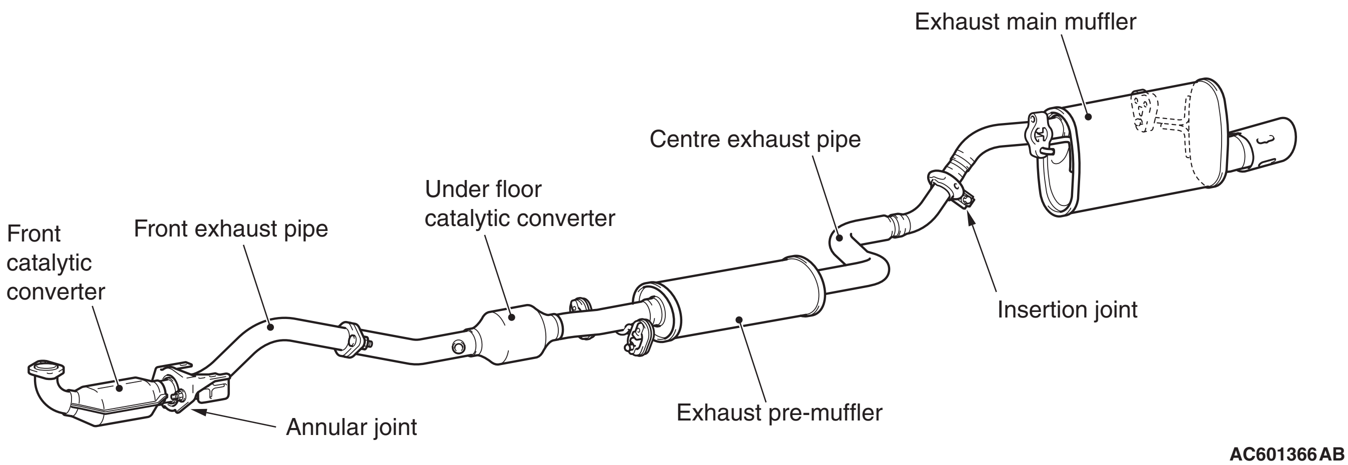
- An exhaust pre-muffler has been installed to the centre exhaust pipe in order to reduce exhaust noise.
- An insertion joint has been adopted for the connection between the centre exhaust pipe and the exhaust main muffler to save the weight of the exhaust system.
- The under floor catalytic converter has been moved closer to the engine side to improve exhaust gas performance.
- An annular joint has been adopted for the connection between the exhaust manifold and the front exhaust pipe to reduce the exhaust pipe's vibration from the engine side.

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EXHAUST PIPE AND MUFFLER <4G1>

M2150003000653

CONSTRUCTION DIAGRAM



Exhaust pipe consisting of three separation system: front exhaust pipe, centre exhaust pipe, and exhaust main muffler, has the following features:

- An exhaust pre-muffler has been installed to the centre exhaust pipe in order to reduce exhaust noise.
- An insertion joint has been adopted for the connection between the centre exhaust pipe and the exhaust main muffler to save the weight of the exhaust system.
- An annular joint has been adopted for the connection between the front exhaust pipe and the front catalytic converter has been adopted to reduce vibration from the engine side.
- A front catalytic converter and an under floor catalytic converter have been adopted to improve exhaust gas performance.